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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,497	10/08/2003	Stephen G. Bales	LA 001	5906

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EXAMINER

DANIELS, MATTHEW J

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/681,497

Applicant(s)

BALES, STEPHEN G.

Examiner

Matthew J. Daniels

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10/8/03.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 8 October 2003 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. In this case, the article "Protection of Oriented Strandboard with Borate" by Trek, et al, appears to be missing from the file. Therefore, the article has not been considered. Applicant is requested to provide a copy for proper consideration.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. **Claims 1-11, 14-27, and 31** are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1,2,5-7,10-12, 15-17, and 20 of copending Application No. 11/149,808 in view of Ohkawa (USPN 4891399).

Instant Claims 1 and 16 and Claims 1 and 11 of the '808 application are both drawn to methods for making lignocellulosic products containing a boron-containing compound. Instant Claims 1 and 16 are different because they are directed to a boron-containing fungicide and not to a borate compound. However, borate compounds are claimed in the instant application in Claims 6-11, 14, and 22-27. Claims 1 and 11 of the '808 application are different because they include zinc oxide and forming by heat and pressure. However, these differences would have been obvious because forming thermoplastic materials obviously requires heat and pressure, and because zinc oxide is a common and obvious filler in thermoplastic materials (See Ohkawa, Abstract). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate zinc oxide as a filler in the instant invention in order to reduce the cost of the product.

Instant Claims 4, 5, 15, 20, 21, and 31 are drawn to polymers and lignocellulosic fillers. However, these aspects are obvious over Claims 2, 5, 12, and 15 of the '808 application which claim the same polymers and lignocellulosic fillers.

Instant Claims 2, 4, and 17-19 are drawn to the amount of boron-containing fungicide. However, these aspects are obvious over Claims 6, 7, 16, and 17 of the '808 application, which claim the same amounts.

This is a provisional obviousness-type double patenting rejection.

3. **Claims 1-4, 6-11, 14-20, 22-27, and 31** are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 of copending Application No. 10/909,053 in view of Nadkarni (USPN 5514478).

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Instant Claims 1 and 16 and Claim 1 of the '053 application are both drawn to methods for making lignocellulosic products containing a boron-containing compound. Instant Claims 1 and 16 are different because they are directed to a boron-containing fungicide and not to a borate compound. However, borate compounds are claimed in the instant application in Claims 6-11, 14, and 22-27. Claims 1 of the '053 application is different because it includes a dust reducing amount of moisture prior to forming the composite. However, this difference would have been prima facie obvious to one of ordinary skill because borates including zinc borate are known to be hydrophilic. This aspect is taught by Nadkarni (4:44-55). In view of Nadkarni's teachings, it would have been inherent or obvious that zinc borate or other borates would contain a percentage of water.

Instant Claims 6-11 and 22-25 are drawn to particular borates. However, these aspects are obvious over Claims 2-9 of the '053 application which claim the same borates.

Instant Claims 2-3, and 17-19 are drawn to the amount of boron-containing fungicide. However, these aspects are obvious over Claims 2 and 5 of the '053 application, which claim the same amounts.

Instant Claims 4, 15, 20 and 31 are drawn to particular lignocellulosic fillers. However, these aspects are obvious over Claims 10 and 11 of the '053 application, which claim the same lignocellulosic filler.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1-5, 14-17, 20, 21, and 31** are rejected under 35 U.S.C. 102(b) as being anticipated by Aida (USPN 5221781). **As to Claim 1**, Aida teaches a method for forming lignocellulosic thermoplastic composite products comprising incorporating an amount of boron-containing fungicide prior to forming the composite product (3:39-55, 6:18-21, 6:62-7:20). **As to Claims 2 and 3**, Aida teaches the claimed range (7:12-28). **As to Claims 4 and 5**, Aida teaches at least wood and polyethylene (6:19 and 3:39-45). **As to Claims 14 and 15**, Aida teaches at least zinc borate and wood (6:67 and 6:19). **As to Claim 16**, Aida teaches a method for forming lignocellulosic thermoplastic composite products comprising incorporating an amount of boron-containing fungicide prior to forming the composite product (3:39-55, 6:18-21, 6:62-7:20). **As to Claim 17**, Aida teaches about 5% (7:12-15). **As to Claims 20, 21, and 31**, Aida teaches at least wood and polyethylene (6:19 and 3:42).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 6-13, 18, 19, 22-29** are rejected under 35 U.S.C. 103(a) as being unpatentable over Aida (USPN 5221781) in view of Lloyd (USPN 6368529). Aida teaches the subject matter of Claims 1 and 16. See the rejections of Claims 1 and 16 under 35 USC 102(b). **As to Claim**

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6, Lloyd teaches calcium borate (Abstract). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Lloyd into that of Aida because Lloyd teaches that an additional advantage of producing products with calcium borate in place of conventionally used zinc borate is that the calcium borates have much better flow properties, making them easier to store and handle in processing equipment (9:1-5). **As to Claims 7-11**, Lloyd teaches at least calcium polytriborate (3:39) that is either natural or synthetic (3:39-41), and nobleite (3:42). **As to Claims 12 and 13**, Lloyd teaches the claimed ranges (3:30-45). **As to Claims 18 and 19**, Lloyd teaches the claimed ranges (3:52-63). **As to Claims 22-27**, Lloyd teaches at least calcium polytriborate (3:39) that is either natural or synthetic (3:39-41), and nobleite (3:42). **As to Claims 28-29**, Lloyd teaches the claimed ranges (3:30-45).

6. **Claim 30** is rejected under 35 U.S.C. 103(a) as being unpatentable over Aida (USPN 5221781) in view of Chow (USPN 5130352). Aida teaches the subject matter of Claim 16. See the rejection of Claim 16 under 35 USC 102(b). **As to Claim 30**, Chow teaches boric acid in polyethylene (2:41-65). It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate the method of Chow into that of Aida in order to suppress odor (2:36-40).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Daniels whose telephone number is (571) 272-2450. The examiner can normally be reached on Monday - Thursday, 7:30 am - 5:30 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJD 8/3/05

MJD


MICHAEL P. COLAIANNI
SUPERVISORY PATENT EXAMINER